



TENNESSEE DEPARTMENT OF AGRICULTURE

Water Resources Program

The following individual has submitted all required elements of an NMP/CNMP as required to obtain a CAFO permit. Their Nutrient Management Plan (or CNMP) has been reviewed and approved by this office.

Name of Owner/Operator: William C. Maloney

Operation Name: Willway Dairy (FNA Holt Dairy Farm)

Address of Operation: 5290 Holt Road, Sweetwater, TN 37874

Phone Number: (423) 351-4214 County: Monroe/Loudon

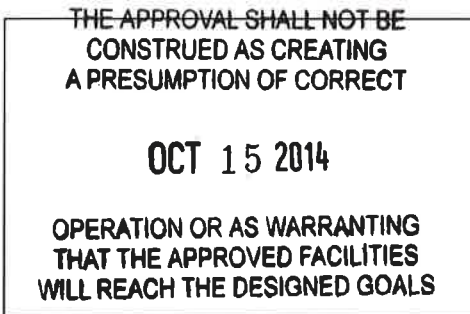
Date application was initiated:



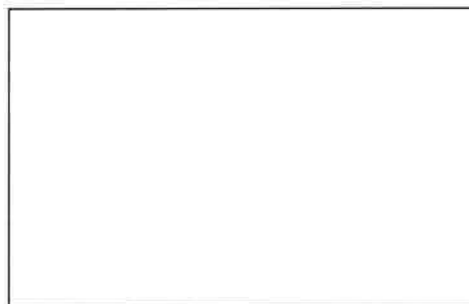
Date approval forwarded to TDEC:



NMP/CNMP Approval Date:



Date approval received by TDEC



TDA Reviewer's Name: Sam Marshall

TDA Reviewer's Signature: Sam Marshall October 15, 2014
Date

Will Maloney
Willway Dairy

Swetwater, TN

10/24/11
1/18/12
Monroe/Lowderb.

Nutrient Management Plan Requirements

The following 9 items need to be submitted at the time the permit is applied for. Additional record-keeping items as outlined in the CAFO rules are also considered part of the nutrient management plan and must be kept on-site. More information on each item can be found in the CAFO rule (1200-4-5-.14).

- ☒ 1. **Two maps:** (1.) A map of your farm showing location of any animal barns/houses, compost bins, litter storage bins, manure lagoons/holding ponds, nearby roads, fields to which litter/manure will be applied, and non-application buffer areas around any bodies of water (streams, creeks, rivers, ponds, wells, sinkholes, springs, wetlands, etc.). A hand-drawn map is acceptable and even preferred. (2.) A topographic map of the farm (1:24000 scale, showing 1-mile radius from farm) showing property lines.
- ☒ 2. **Nutrient budget** – this is basically a balance sheet of all manure produced on the farm and all manure spread on the farm or removed from the farm. Application rates for all fields should be based on crop needs, realistic crop yield expectations, and actual manure analyses of nutrient content.
- ☒ 3. **Soil test results** for phosphorus and potassium for each application field. These must be taken at a minimum of every five years.
- ☒ 4. Results of **manure analysis** from within the past year. Annual manure testing is a requirement for all CAFOs. These results must be included with initial permit application if the farm is in operation. If the farm that is applying for the permit is new and not yet operating, then manure testing results need to be obtained once operation begins. At that point, the manure test results and revised application rates need to be submitted to TDA. Manure test results in subsequent years need to be kept as part of your record-keeping activities.
- ☒ 5. Results of the **Phosphorus Index** applied to each field that has a soil test P value of "High" or "Very High". In those situations, this tool will determine whether your application rates will be based on nitrogen or phosphorus.
- ☒ 6. Statement regarding method of **dead animal disposal**.
- ☒ 7. **Closure Plan** to be implemented in the event animal production ceases on the site.

These last two items are only required for medium-size CAFOs that manage **liquid manure**.

- ☒ 8. Documentation of **design of liquid waste handling system**. This should include, but is not limited to: volume for solids accumulation, design treatment volume, total design volume, the approximate number of days of storage capacity, pumping and routing of wastes, and any solid separation process. Ideally, this documentation would consist of the pertinent engineering drawings with accompanying descriptive narrative.
- ☒ 9. The construction, modification, repair, or installation of any portion of a CAFO liquid waste handling system (such as earthen holding pond, treatment lagoon, pit, sump or other earthen storage/containment structure) after April 13, 2006 must be preceded by a thorough **subsurface investigation**. This investigation will include a detailed soils investigation with special attention to the water table depth and seepage potential.

In addition to the items above, the following form(s) must accompany your application:

- ☒ **Notice of Intent form** must be submitted with all applications from Class II (Medium) CAFOs
- OR**
- ☒ **EPA Forms 1 and 2B** must be submitted with all applications from Class I (Large) CAFOs.
- ☒ **Addendum to Nutrient Management Plan**.





423
Tennessee Department of Environment and Conservation,
Division of Water Pollution Control
401 Church Street, 6th Floor L & C Annex, Nashville, TN 37243
(615) 532-0625

**CONCENTRATED ANIMAL FEEDING OPERATION (CAFO)
STATE OPERATING PERMIT (SOP)
NOTICE OF INTENT (NOI)**

Type of permit you are requesting: ☐ SOPCD0000 (designed to discharge) ☐ SOPC00000 (no discharge) ☐ Unknown, please advise
Application type: ☐ New Permit ☒ Permit Reissuance ☐ Permit Modification

If this NOI is submitted for Permit Modification or Reissuance provide the existing permit tracking number: **TNA00023**

OPERATION IDENTIFICATION


Operation Name: Willway Dairy		County: Monroe/ Loudon
Operation Location/ Physical Address: 5290 Holt Road Sweetwater, TN 37874		Latitude: 35.649327
		Longitude: -84.512429
Name and distance to nearest receiving water(s): Greasy Creek - 600 feet		
If any other State or Federal Water/Wastewater Permits have been obtained for this site, list those permit numbers: previous permits: TNA00023		
Animal Type: <input type="checkbox"/> Poultry <input type="checkbox"/> Swine <input checked="" type="checkbox"/> Dairy <input type="checkbox"/> Beef <input type="checkbox"/> Other _____		
Number of Animals: 350	Number of Barns: 1 Parlor, 1 free stall barns, 1 calf shed.	Name of Integrator: NA
Type of Animal Waste Management: (check all that apply) <input checked="" type="checkbox"/> Dry <input checked="" type="checkbox"/> Liquid <input type="checkbox"/> Liquid, Closed System (i.e. covered tank, under barn pit, etc.)		
Attach the NMP <input checked="" type="checkbox"/> NMP Attached	Attach the closure plan <input checked="" type="checkbox"/> Closure Plan Attached	Attach a topographic map <input checked="" type="checkbox"/> Map Attached

PERMITTEE IDENTIFICATION

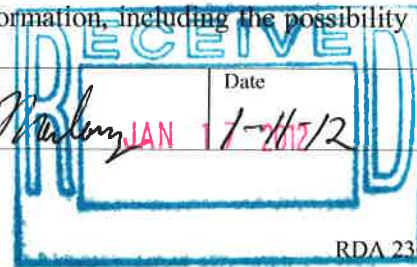
Official Contact (applicant): Mr William C. Maloney	Title or Position: Lessee/Operator			<input checked="" type="checkbox"/> Correspondence <input checked="" type="checkbox"/> Invoice
Mailing Address: 5290 Holt Road	City: Sweetwater	State: TN	Zip: 37874	
Phone number(s): (423) 351-4214 or (423) 836-8636	E-mail: willwaydairytn@yahoo.com			
Optional Contact:	Title or Position:			<input type="checkbox"/> Correspondence <input type="checkbox"/> Invoice
Address:	City:	State:	Zip:	
Phone number(s):	E-mail:			

APPLICATION CERTIFICATION AND SIGNATURE (must be signed in accordance with the requirements of [Rule 1200-4-5-.05](#))

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and title; print or type William C. Maloney Lessee/ Operator	Signature 	Date JAN 11 11/12
---	---	-----------------------------

STATE USE ONLY



Received Date	Reviewer	EFO	T & E Aquatic Fauna	Tracking No.
	Impaired Receiving Stream		High Quality Water	NOC Date



(continued)

Addendum to Nutrient Management Plan:

TOA

By my signature below, I affirm that I have read, understand, and will comply with the following stipulations from Tennessee's CAFO rule (1200-4-5-.14) that apply to my CAFO operation.

- 1) All clean water (including rainfall) is diverted, as appropriate, from the production area.
- 2) All animals in confinement are prevented from coming in direct contact with waters of the state.
- 3) All chemicals and other contaminants handled on-site are not disposed of in any manure, litter, process wastewater, or storm water storage or treatment system unless specifically designed to treat such chemicals and other contaminants.
- 4) All sampling of soil and manure/litter is conducted according to protocols developed by UT Extension.
- 5) All records outlined in 1200-4-5-.14(16)d-f will be maintained and available on-site.
- 6) Any confinement buildings, waste/wastewater handling or treatment systems, lagoons, holding ponds, and any other agricultural waste containment/treatment structures constructed after April 13, 2006 are or will be located in accordance with NRCS Conservation Practice Standard 313.
- 7) Drystacks of manure or stockpiles of litter are always kept covered under roof or tarps.
- 8) An *Annual Report* will be written for my operation and submitted between January 1 and February 15 of each year. It will include all information required by rule [1200-4-5-.14(16)g].


Signature of CAFO Operator:

9-30-11
Date:

RECEIVED

OCT 24 2011

AGRICULTURAL DIAGNOSTIC LABORATORY
UNIVERSITY OF ARKANSAS - FAYETTEVILLE

Fax 800 633-2814

***MANURE FOR FERTILIZER ANALYSIS (report for ARI-429)

Name:	WILLWAY DAIRY	Received in lab:	3/14/2012
Address:	5290 HOLT RD. HOLT	Mailed:	3/20/2012
City:	SWEETWATER	State, Zip:	TN 37874
County:	MONROE (TN)	CK#	bill to Dr. Forbes Walker

Lab. No.	M20539
Sample No.	NONE GIVEN
Animal type	dairy
-age/lbs	300-400 lb calves
Bedding type	none given
Manure type	calf barn bedded pack
Sample date	3/11/2012
Age of manure	3 weeks
pH	9.3
EC(μmhos/cm)	1974
% H ₂ O	71.38

-on dry basis-

Total %N	1.15
Total %P	0.49
Total %K	1.42
Total %Ca	1.17
Total %Carbon	26.49
NO ₃ -N, mg/kg	
NH ₄ -N, mg/kg	

-on as-is basis-

Total %N	0.33
Total %P	0.14
Total %K	0.41
Total %Ca	0.33
Total %Carbon	7.58
NO ₃ -N, mg/kg	
NH ₄ -N, mg/kg	

-lbs/ton on as-is basis-

N	8.6
P ₂ O ₅	6.4
K ₂ O	9.8
Ca	6.7
Total Carbon	151.6
NO ₃ -N	
NH ₄ -N	

***all analyses performed on "as-is" basis/ "dry" basis is calculated from moisture content

*lbs/ton P₂O₅ = %Total P on "as-is" basis multiplied by 20*2.29

*lbs/ton K₂O = %Total K on "as-is" basis multiplied by 20*1.2

RECEIVED

DEC 4 2012

**AGRICULTURAL DIAGNOSTIC LABORATORY
UNIVERSITY OF ARKANSAS- FAYETTEVILLE**

LIQUID MANURE FOR FERTILIZER ANALYSIS (report for AGRI-429)

willwaydairyTN@yahoo.com

Name: **WILLWAY DAIRY**

Received in lab: 10/15/2012

Address: **5290 HOLT RD.**

Mailed: 10/23/2012

City: **SWEETWATER**State, Zip: **TN 37874**County: **MONROE (TN)**Check #: **bill to Dr. Forbes Walker**

Lab. No.	M21416	M21417				
Sample I.D.	NONE GIVEN	NONE GIVEN				
Animal type	dairy	dairy				
Age/lbs	none given	none given				
Bedding type	sand	sand				
Manure type	dry stack	lagoon sludge				
Sample date	10/05/2012	10/05/2012				
Age of manure	1-7 days	15 years				
pH	6.5	7.3				
EC(µmhos/cm)	15610	3370				
% Solids	17.15	5.82				

-mg/l on as-is basis-

Total N	4121	1492				
Total P	817	555				
Total K	2267	420				
Total Ca	2481	5080				
Ammonia-N						
Nitrate-N						

-lbs/1000 gal on as-is basis-

Total N	34.3	12.4				
TOTAL P AS "P2O5"	15.6	10.6				
TOTAL K AS "K2O"	22.7	4.2				
Total Ca	20.7	42.3				
Ammonia-N						
Nitrate-N						

*lbs/1000gal P2O5 = mg/l Total P on "as-is" basis multiplied by 2.29*0.00833

*lbs/1000gal K2O = mg/l Total K on "as-is" basis multiplied by 1.2*0.00833

RECEIVED

OCT 24 2012

UT Extension

For small grain establishment, apply 15 pounds of nitrogen per acre when following soybeans and 30 pounds per acre when following corn, grain sorghum or grasses.

Topdress small grain February 15 to March 15 with 60 to 90 pounds per acre of nitrogen. Use lower rates of nitrogen where lodging has been a problem.

County: Monroe

Lab Number: 412958

Field 28 truck / Mehlich 1 SOIL TEST RESULTS and RATINGS* (Pounds Per Acre)

Water pH	Buffer Value	P Phosphorus	K Potassium	Ca Calcium	Mg Magnesium	Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	S Sulfur	Nitrates (ppm)
6.6		40 H	161 H	366 S	696 S								
		Organic Matter %	Soluble Salts PPM**										

RECOMMENDATIONS

K

Fertilizer/Lime Application Rate and Timing

Corn Silage 15-18 T/A

N / P₂O₅ / K₂O

Nitrogen/Phosphate/Potash 120 / 0 / 0 pounds per acre

Limestone: Lime is not recommended at this time

Banding a portion or all of the phosphate and potash two inches to the side and below the seed level may result in increased yields on soils testing low in either or both phosphorous and potassium. For soils testing medium or higher, either banding or broadcasting are effective methods of application. If fertilizer is placed directly with the seed, do not apply more than 30 pounds per acre of nitrogen or nitrogen plus potash to prevent seedling injury and loss of stand.

Split applications of nitrogen may be beneficial when nitrogen rates are greater than 120 pounds per acre. See Corn Nitrogen Rate Calculator at www.utcrops.com.

If nitrogen sources containing urea are not incorporated, some loss of nitrogen may occur if applied to moist soils followed by three or more days of rapidly drying conditions without rainfall.

Reduce N rate by 60 to 80 pounds per acre following a winter cover crop of crimson clover or hairy vetch that has reached early bloom stage.

If zinc was tested and is below 2 pounds per acre, apply five pounds of zinc (approximately 15 pounds zinc sulfate) per acre just prior to planting.

County: Monroe

Lab Number: 412959

Mehlich 1 SOIL TEST RESULTS and RATINGS* (Pounds Per Acre)													
Sample ID	LINDA	Linda											
Water pH	Buffer Value	P Phosphorus	K Potassium	Ca Calcium	Mg Magnesium	Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	S Sulfur	Nitrates (ppm)
6.7		70 H	94 M	2456 S	521 S								
		Organic Matter %	Soluble Salts PPM**										

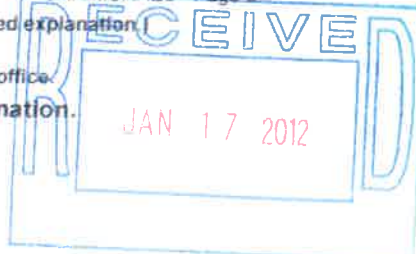
*Ratings: Indicates relative availability of nutrients to plants. (See back of this form for detailed explanation.)

**PPM = Parts per Million

If you have questions about these recommendations, contact your County Extension office.

Visit our web site at <http://soilplantandpest.utk.edu> for additional information.

CARMICHAEL Page 6



Banding a portion or all of the phosphate and potash two inches to the side and below the seed level may result in increased yields on soils testing low in either or both phosphorous and potassium. For soils testing medium or higher, either banding or broadcasting are effective methods of application. If fertilizer is placed directly with the seed, do not apply more than 30 pounds per acre of nitrogen or nitrogen plus potash to prevent seedling injury and loss of stand.

Split applications of nitrogen may be beneficial when nitrogen rates are greater than 120 pounds per acre. See Corn Nitrogen Rate Calculator at www.utcrops.com.

If nitrogen sources containing urea are not incorporated, some loss of nitrogen may occur if applied to moist soils followed by three or more days of rapidly drying conditions without rainfall.

Reduce N rate by 60 to 80 pounds per acre following a winter cover crop of crimson clover or hairy vetch that has reached early bloom stage.

If zinc was tested and is below 2 pounds per acre, apply five pounds of zinc (approximately 15 pounds zinc sulfate) per acre just prior to planting.

County: Knox

Lab Number: 426607

Mehlich 1 SOIL TEST RESULTS and RATINGS*

(Pounds Per Acre)

Sample ID	FD13TK	(Pounds Per Acre)											
Water pH	Buffer Value	P Phosphorus	K Potassium	Ca Calcium	Mg Magnesium	Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	S Sulfur	Nitrates (ppm)
5.9	7.6	81 H	207 H	1617 S	310 S								
		Organic Matter %	Soluble Salts PPM**										

RECOMMENDATIONS

FD13TK

Fertilizer/Lime Application Rate and Timing

Corn Silage 15-18 T/A

N / P₂O₅ / K₂O

Nitrogen/Phosphate/Potash: 120 / 0 / 0 pounds per acre

Limestone: 2 tons per acre

Banding a portion or all of the phosphate and potash two inches to the side and below the seed level may result in increased yields on soils testing low in either or both phosphorous and potassium. For soils testing medium or higher, either banding or broadcasting are effective methods of application. If fertilizer is placed directly with the seed, do not apply more than 30 pounds per acre of nitrogen or nitrogen plus potash to prevent seedling injury and loss of stand.

Split applications of nitrogen may be beneficial when nitrogen rates are greater than 120 pounds per acre. See Corn Nitrogen Rate Calculator at www.utcrops.com.

If nitrogen sources containing urea are not incorporated, some loss of nitrogen may occur if applied to moist soils followed by three or more days of rapidly drying conditions without rainfall.

Reduce N rate by 60 to 80 pounds per acre following a winter cover crop of crimson clover or hairy vetch that has reached early bloom stage.

If zinc was tested and is below 2 pounds per acre, apply five pounds of zinc (approximately 15 pounds zinc sulfate) per acre just prior to planting.

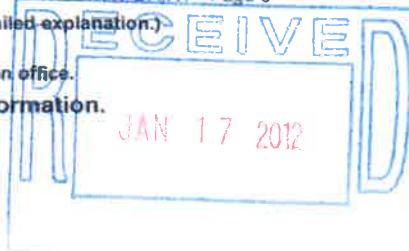
*Ratings: Indicates relative availability of nutrients to plants. (See back of this form for detailed explanation.)

**PPM = Parts per Million

If you have questions about these recommendations, contact your County Extension office.

Visit our web site at <http://soilplantandpest.utk.edu> for additional information.

WILLWAY DAIRY - Page 3



SOIL TEST REPORT

LENA BETH CARMICHAEL
107 WEST COLLEGE STREET

ATHENS, TN 37303

Deborah K. Joines
Deborah K. Joines
Manager

Soil, Plant and Pest Center
5201 Marchant Drive
Nashville, TN 37211-5112

(615) 832-5850
soilplantpestcenter@utk.edu

Date Tested: 10/5/2009

Lab Number: 374749

County: Knox

Mehlich 1 SOIL TEST RESULTS and RATINGS*

Sample ID WILA

(Pounds Per Acre)

Water pH	Buffer Value	P Phosphorus	K Potassium	Ca Calcium	Mg Magnesium	Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	S Sulfur	Nitrates (ppm)
6.4		151 V	155 M	2264 S	476 S								
		Organic Matter %	Soluble Salts PPM**										

RECOMMENDATIONS

WILA

Fertilizer/Lime Application Rate and Timing

Small Grain and/or Ryegrass

N / P₂O₅ / K₂O

Nitrogen/Phosphate/Potash 60-180 / 0 / 40 pounds per acre

Limestone

Lime is not recommended at this time

For fall grazing apply 60 pounds of nitrogen at time of seeding. For fall and spring grazing apply an additional 45 pounds of nitrogen about March 1 and 45 pounds April 15. For fall grazing and spring hay or silage, apply 60 pounds of nitrogen at seeding and 60 pounds nitrogen March 1-15. For spring hay or silage only, apply 45 pounds nitrogen at seeding and 60 pounds March 15. Where ryegrass is in the mixture and an additional cutting is expected in the spring, apply an additional 60 pounds of nitrogen per acre immediately after the first cutting. For spring grazing only apply 30 pounds nitrogen per acre at seeding and 45 pounds March 1 and 45 pounds April 15.

County: Knox

Lab Number: 374750

Field 1+2
Sample ID WILB

Mehlich 1 SOIL TEST RESULTS and RATINGS*

(Pounds Per Acre)

Water pH	Buffer Value	P Phosphorus	K Potassium	Ca Calcium	Mg Magnesium	Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	S Sulfur	Nitrates (ppm)
6.5		142 V	208 H	2447 S	594 S								
		Organic Matter %	Soluble Salts PPM**										

JAN 17 2012

RECOMMENDATIONS

WILEB

Fertilizer/Lime Application Rate and Timing

Small Grain and/or Ryegrass

N / P₂O₅ / K₂O

Nitrogen/Phosphate/Potash 60-180 / 0 / 0 pounds per acre

2009

Limestone: Lime is not recommended at this time

For fall grazing apply 60 pounds of nitrogen at time of seeding. For fall and spring grazing apply an additional 45 pounds of nitrogen about March 1 and 45 pounds April 15. For fall grazing and spring hay or silage, apply 60 pounds of nitrogen at seeding and 60 pounds nitrogen March 1-15. For spring hay or silage only, apply 45 pounds nitrogen at seeding and 60 pounds March 15. Where ryegrass is in the mixture and an additional cutting is expected in the spring, apply an additional 60 pounds of nitrogen per acre immediately after the first cutting. For spring grazing only apply 30 pounds nitrogen per acre at seeding and 45 pounds March 1 and 45 pounds April 15.

County: Knox

Lab Number: 374755

Field 27

Mehlich-1 SOIL TEST RESULTS and RATINGS*

Sample ID WILWFG

(Pounds Per Acre)

2010

Water pH	Buffer Value	P Phosphorus	K Potassium	Ca Calcium	Mg Magnesium	Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	S Sulfur	Nitrates (ppm)
6.4		176 V	252 H	3491 S	715 S								
		Organic Matter %	Soluble Salts PPM**										

*20 Sch 12-17
5 dr. Balap*

RECOMMENDATIONS

WILWFG

Fertilizer/Lime Application Rate and Timing

Small Grain and/or Ryegrass

N / P₂O₅ / K₂O

Nitrogen/Phosphate/Potash 60-180 / 0 / 0 pounds per acre

Limestone: Lime is not recommended at this time

For fall grazing apply 60 pounds of nitrogen at time of seeding. For fall and spring grazing apply an additional 45 pounds of nitrogen about March 1 and 45 pounds April 15. For fall grazing and spring hay or silage, apply 60 pounds of nitrogen at seeding and 60 pounds nitrogen March 1-15. For spring hay or silage only, apply 45 pounds nitrogen at seeding and 60 pounds March 15. Where ryegrass is in the mixture and an additional cutting is expected in the spring, apply an additional 60 pounds of nitrogen per acre immediately after the first cutting. For spring grazing only apply 30 pounds nitrogen per acre at seeding and 45 pounds March 1 and 45 pounds April 15.

County: Knox

Lab Number: 374756

Field 33

Mehlich-1 SOIL TEST RESULTS and RATINGS*

Sample ID WILWH

(Pounds Per Acre)

Water pH	Buffer Value	P Phosphorus	K Potassium	Ca Calcium	Mg Magnesium	Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	S Sulfur	Nitrates (ppm)
6.3		192 V	272 H	2340 S	425 S								
		Organic Matter %	Soluble Salts PPM**										

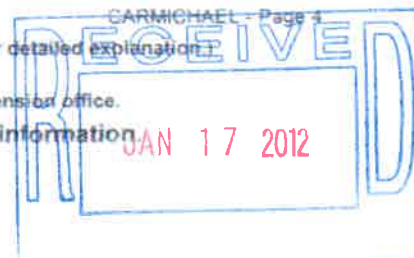
*Ratings: Indicates relative availability of nutrients to plants. (See back of this form for detailed explanation.)

**PPM = Parts per Million

If you have questions about these recommendations, contact your County Extension office.

Visit our web site at <http://soilplantandpest.utk.edu> for additional information

CARMICHAEL - Page 4



RECOMMENDATIONS

WILWH

Fertilizer/Lime Application Rate and Timing

Small Grain and/or Ryegrass

N / P₂O₅ / K₂O

Nitrogen/Phosphate/Potash: 60-180 / 0 / 0 pounds per acre

Limestone: Lime is not recommended at this time

For fall grazing apply 60 pounds of nitrogen at time of seeding. For fall and spring grazing apply an additional 45 pounds of nitrogen about March 1 and 45 pounds April 15. For fall grazing and spring hay or silage, apply 60 pounds of nitrogen at seeding and 60 pounds nitrogen March 1-15. For spring hay or silage only, apply 45 pounds nitrogen at seeding and 60 pounds March 15. Where ryegrass is in the mixture and an additional cutting is expected in the spring, apply an additional 60 pounds of nitrogen per acre immediately after the first cutting. For spring grazing only apply 30 pounds nitrogen per acre at seeding and 45 pounds March 1 and 45 pounds April 15.

County: Knox

Lab Number: 374757

Field #11

Mehlich 1 SOIL TEST RESULTS and RATINGS*

Sample ID: WILWI

(Pounds Per Acre)

Water pH	Buffer Value	P Phosphorus	K Potassium	Ca Calcium	Mg Magnesium	Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	S Sulfur	Nitrates (ppm)
6.8		406 V	528 V	4838 S	1304								
		Organic Matter %	Soluble Salts PPM**										

RECOMMENDATIONS

WILWI

Fertilizer/Lime Application Rate and Timing

Small Grain and/or Ryegrass

N / P₂O₅ / K₂O

Nitrogen/Phosphate/Potash: 60-180 / 0 / 0 pounds per acre

Limestone: Lime is not recommended at this time

For fall grazing apply 60 pounds of nitrogen at time of seeding. For fall and spring grazing apply an additional 45 pounds of nitrogen about March 1 and 45 pounds April 15. For fall grazing and spring hay or silage, apply 60 pounds of nitrogen at seeding and 60 pounds nitrogen March 1-15. For spring hay or silage only, apply 45 pounds nitrogen at seeding and 60 pounds March 15. Where ryegrass is in the mixture and an additional cutting is expected in the spring, apply an additional 60 pounds of nitrogen per acre immediately after the first cutting. For spring grazing only apply 30 pounds nitrogen per acre at seeding and 45 pounds March 1 and 45 pounds April 15.

County: Knox

Lab Number: 374758

Field #7

Mehlich 1 SOIL TEST RESULTS and RATINGS*

Sample ID: WILWJ

(Pounds Per Acre)

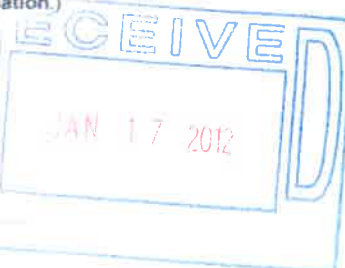
Water pH	Buffer Value	P Phosphorus	K Potassium	Ca Calcium	Mg Magnesium	Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	S Sulfur	Nitrates (ppm)
6.7		287 V	238 H	2654 S	493 S								
		Organic Matter %	Soluble Salts PPM**										

*Ratings: Indicates relative availability of nutrients to plants. (See back of this form for detailed explanation.)

**PPM = Parts per Million

If you have questions about these recommendations, contact your County Extension office.

Visit our web site at <http://soilplantandpest.utk.edu> for additional information.





SOIL TEST REPORT

WILLWAY DAIRY
5290 HOLT RD
SWEETWATER, TN 37874

Deborah K. Joines

Deborah K. Joines
Manager
Soil, Plant and Pest Center
5201 Marchant Drive
Nashville, TN 37211-5112
(615) 832-5850
soilplantpestcenter@utk.edu

Date Tested: 12/6/2011

County: Knox

Lab Number: 426604

Mehlich 1 SOIL TEST RESULTS and RATINGS*

Sample ID FD15TK1

(Pounds Per Acre)

Water pH	Buffer Value	P Phosphorus	K Potassium	Ca Calcium	Mg Magnesium	Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	S Sulfur	Nitrates (ppm)
6.9		169 V	273 H	3329 S	855 S								
		Organic Matter %	Soluble Salts PPM**										

RECOMMENDATIONS

FD15TK1

Fertilizer/Lime Application Rate and Timing

Corn Silage 15-18 T/A

N / P₂O₅ / K₂O

Nitrogen/Phosphate/Potash: 120 / 0 / 0 pounds per acre

Limestone: Lime is not recommended at this time

Banding a portion or all of the phosphate and potash two inches to the side and below the seed level may result in increased yields on soils testing low in either or both phosphorous and potassium. For soils testing medium or higher, either banding or broadcasting are effective methods of application. If fertilizer is placed directly with the seed, do not apply more than 30 pounds per acre of nitrogen or nitrogen plus potash to prevent seedling injury and loss of stand.

Split applications of nitrogen may be beneficial when nitrogen rates are greater than 120 pounds per acre. See Corn Nitrogen Rate Calculator at www.utccrops.com.

If nitrogen sources containing urea are not incorporated, some loss of nitrogen may occur if applied to moist soils followed by three or more days of rapidly drying conditions without rainfall.

Reduce N rate by 60 to 80 pounds per acre following a winter cover crop of crimson clover or hairy vetch that has reached early bloom stage.

If zinc was tested and is below 2 pounds per acre, apply five pounds of zinc (approximately 15 pounds zinc sulfate) per acre just prior to planting.

County: Knox

Lab Number: 426605

*Ratings: Indicates relative availability of nutrients to plants. (See back of this form for detailed explanation.)

**PPM = Parts per Million

If you have questions about these recommendations, contact your County Extension office.

Visit our web site at <http://soilplantandpest.utk.edu> for additional information.

WILLWAY DAIRY - Page 1

JAN 17 2012

Mehlich 1 SOIL TEST RESULTS and RATINGS***Sample ID FD10TK1****(Pounds Per Acre)**

Water pH	Buffer Value	P Phosphorus	K Potassium	Ca Calcium	Mg Magnesium	Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	S Sulfur	Nitrates (ppm)
6.0	7.6	30 M	189 H	1473 S	300 S								
		Organic Matter %	Soluble Salts PPM**										

RECOMMENDATIONS**FD10TK1****Fertilizer/Lime Application Rate and Timing****Corn Silage 15-18 T/A****N / P₂O₅ / K₂O**

Nitrogen/Phosphate/Potash: 120 / 60 / 0 pounds per acre

Limestone: 2 tons per acre

Banding a portion or all of the phosphate and potash two inches to the side and below the seed level may result in increased yields on soils testing low in either or both phosphorous and potassium. For soils testing medium or higher, either banding or broadcasting are effective methods of application. If fertilizer is placed directly with the seed, do not apply more than 30 pounds per acre of nitrogen or nitrogen plus potash to prevent seedling injury and loss of stand.

Split applications of nitrogen may be beneficial when nitrogen rates are greater than 120 pounds per acre. See Corn Nitrogen Rate Calculator at www.utcropl.com.

If nitrogen sources containing urea are not incorporated, some loss of nitrogen may occur if applied to moist soils followed by three or more days of rapidly drying conditions without rainfall.

Reduce N rate by 60 to 80 pounds per acre following a winter cover crop of crimson clover or hairy vetch that has reached early bloom stage.

If zinc was tested and is below 2 pounds per acre, apply five pounds of zinc (approximately 15 pounds zinc sulfate) per acre just prior to planting.

County: Knox

Lab Number: 426606

Mehlich 1 SOIL TEST RESULTS and RATINGS***Sample ID FD5TK1****(Pounds Per Acre)**

Water pH	Buffer Value	P Phosphorus	K Potassium	Ca Calcium	Mg Magnesium	Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	S Sulfur	Nitrates (ppm)
5.9	7.6	104 H	228 H	1601 S	223 S								
		Organic Matter %	Soluble Salts PPM**										

RECOMMENDATIONS**FD5TK1****Fertilizer/Lime Application Rate and Timing****Corn Silage 15-18 T/A****N / P₂O₅ / K₂O**

Nitrogen/Phosphate/Potash: 120 / 0 / 0 pounds per acre

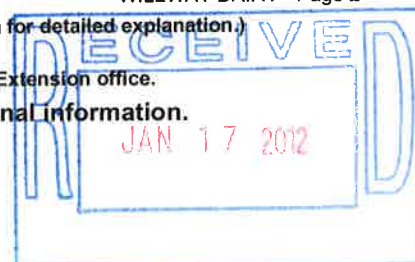
Limestone: 2 tons per acre

WILLWAY DAIRY - Page 2

*Ratings: Indicates relative availability of nutrients to plants. (See back of this form for detailed explanation.)

**PPM = Parts per Million

If you have questions about these recommendations, contact your County Extension office.

Visit our web site at <http://soilplantandpest.utk.edu> for additional information.

Banding a portion or all of the phosphate and potash two inches to the side and below the seed level may result in increased yields on soils testing low in either or both phosphorous and potassium. For soils testing medium or higher, either banding or broadcasting are effective methods of application. If fertilizer is placed directly with the seed, do not apply more than 30 pounds per acre of nitrogen or nitrogen plus potash to prevent seedling injury and loss of stand.

Split applications of nitrogen may be beneficial when nitrogen rates are greater than 120 pounds per acre. See Corn Nitrogen Rate Calculator at www.utcrops.com.

If nitrogen sources containing urea are not incorporated, some loss of nitrogen may occur if applied to moist soils followed by three or more days of rapidly drying conditions without rainfall.

Reduce N rate by 60 to 80 pounds per acre following a winter cover crop of crimson clover or hairy vetch that has reached early bloom stage.

If zinc was tested and is below 2 pounds per acre, apply five pounds of zinc (approximately 15 pounds zinc sulfate) per acre just prior to planting.

County: Knox

Lab Number: 426607

Mehlich 1 SOIL TEST RESULTS and RATINGS*

Sample ID FD13TK

(Pounds Per Acre)

Water pH	Buffer Value	P Phosphorus	K Potassium	Ca Calcium	Mg Magnesium	Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	S Sulfur	Nitrates (ppm)
5.9	7.6	81	H	207	H	1617	S	310	S				
		Organic Matter %	Soluble Salts PPM**										

RECOMMENDATIONS

FD13TK

Fertilizer/Lime Application Rate and Timing

Corn Silage 15-18 T/A

N / P₂O₅ / K₂O

Nitrogen/Phosphate/Potash: 120 / 0 / 0 pounds per acre

Limestone: 2 tons per acre

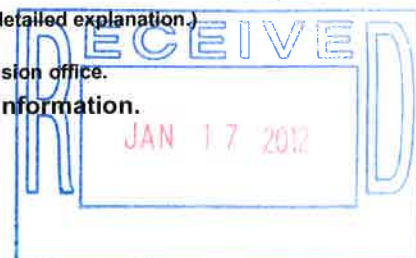
Banding a portion or all of the phosphate and potash two inches to the side and below the seed level may result in increased yields on soils testing low in either or both phosphorous and potassium. For soils testing medium or higher, either banding or broadcasting are effective methods of application. If fertilizer is placed directly with the seed, do not apply more than 30 pounds per acre of nitrogen or nitrogen plus potash to prevent seedling injury and loss of stand.

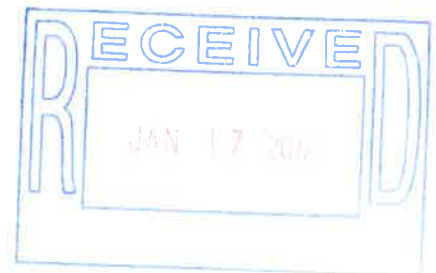
Split applications of nitrogen may be beneficial when nitrogen rates are greater than 120 pounds per acre. See Corn Nitrogen Rate Calculator at www.utcrops.com.

If nitrogen sources containing urea are not incorporated, some loss of nitrogen may occur if applied to moist soils followed by three or more days of rapidly drying conditions without rainfall.

Reduce N rate by 60 to 80 pounds per acre following a winter cover crop of crimson clover or hairy vetch that has reached early bloom stage.

If zinc was tested and is below 2 pounds per acre, apply five pounds of zinc (approximately 15 pounds zinc sulfate) per acre just prior to planting.





Mehlich 1 SOIL TEST RESULTS and RATINGS*Sample ID **FD10TK1**

(Pounds Per Acre)

Water pH	Buffer Value	P Phosphorus	K Potassium	Ca Calcium	Mg Magnesium	Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	S Sulfur	Nitrates (ppm)
6.0	7.6	30	M	189	H	1473	S	300	S				
		Organic Matter %	Soluble Salts PPM**										

RECOMMENDATIONS**FD10TK1****Fertilizer/Lime Application Rate and Timing****Corn Silage 15-18 T/A****N / P₂O₅ / K₂O**

Nitrogen/Phosphate/Potash: 120 / 60 / 0 pounds per acre

Limestone: 2 tons per acre

Banding a portion or all of the phosphate and potash two inches to the side and below the seed level may result in increased yields on soils testing low in either or both phosphorous and potassium. For soils testing medium or higher, either banding or broadcasting are effective methods of application. If fertilizer is placed directly with the seed, do not apply more than 30 pounds per acre of nitrogen or nitrogen plus potash to prevent seedling injury and loss of stand.

Split applications of nitrogen may be beneficial when nitrogen rates are greater than 120 pounds per acre. See Corn Nitrogen Rate Calculator at www.utcrops.com.

If nitrogen sources containing urea are not incorporated, some loss of nitrogen may occur if applied to moist soils followed by three or more days of rapidly drying conditions without rainfall.

Reduce N rate by 60 to 80 pounds per acre following a winter cover crop of crimson clover or hairy vetch that has reached early bloom stage.

If zinc was tested and is below 2 pounds per acre, apply five pounds of zinc (approximately 15 pounds zinc sulfate) per acre just prior to planting.

County: Knox

Lab Number: 426606

Mehlich 1 SOIL TEST RESULTS and RATINGS*Sample ID **FD5TK1**

(Pounds Per Acre)

Water pH	Buffer Value	P Phosphorus	K Potassium	Ca Calcium	Mg Magnesium	Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	S Sulfur	Nitrates (ppm)
5.9	7.6	104	H	228	H	1601	S	223	S				
		Organic Matter %	Soluble Salts PPM**										

RECOMMENDATIONS**FD5TK1****Fertilizer/Lime Application Rate and Timing****Corn Silage 15-18 T/A****N / P₂O₅ / K₂O**

Nitrogen/Phosphate/Potash: 120 / 0 / 0 pounds per acre

Limestone: 2 tons per acre

WILLWAY DAIRY - Page 2

*Ratings: Indicates relative availability of nutrients to plants. (See back of this form for detailed explanation.)

**PPM = Parts per Million

If you have questions about these recommendations, contact your County Extension office.

Visit our web site at <http://soilplantandpest.utk.edu> for additional information.

JAN 17 2012

RECOMMENDATIONS

WILB

Fertilizer/Lime Application Rate and Timing

Small Grain and/or Ryegrass

N / P₂O₅ / K₂O

Nitrogen/Phosphate/Potash 60-180 / 0 / 0 pounds per acre

2009

Limestone: Lime is not recommended at this time

For fall grazing apply 60 pounds of nitrogen at time of seeding. For fall and spring grazing apply an additional 45 pounds of nitrogen about March 1 and 45 pounds April 15. For fall grazing and spring hay or silage, apply 60 pounds of nitrogen at seeding and 60 pounds nitrogen March 1-15. For spring hay or silage only, apply 45 pounds nitrogen at seeding and 60 pounds March 15. Where ryegrass is in the mixture and an additional cutting is expected in the spring, apply an additional 60 pounds of nitrogen per acre immediately after the first cutting. For spring grazing only apply 30 pounds nitrogen per acre at seeding and 45 pounds March 1 and 45 pounds April 15.

County: KNOX

Lab Number: 374751

Field 6
Sample ID WILC

Mehlich 1 SOIL TEST RESULTS and RATINGS*

(Pounds Per Acre)

Water pH	Buffer Value	P Phosphorus	K Potassium	Ca Calcium	Mg Magnesium	Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	S Sulfur	Nitrates (ppm)
6.7		148 V	188 H	2697 S	698 S								
		Organic Matter %			Soluble Salts PPM**								

RECOMMENDATIONS

WILC

Fertilizer/Lime Application Rate and Timing

Small Grain and/or Ryegrass

N / P₂O₅ / K₂O

Nitrogen/Phosphate/Potash 60-180 / 0 / 0 pounds per acre

Limestone: Lime is not recommended at this time

For fall grazing apply 60 pounds of nitrogen at time of seeding. For fall and spring grazing apply an additional 45 pounds of nitrogen about March 1 and 45 pounds April 15. For fall grazing and spring hay or silage, apply 60 pounds of nitrogen at seeding and 60 pounds nitrogen March 1-15. For spring hay or silage only, apply 45 pounds nitrogen at seeding and 60 pounds March 15. Where ryegrass is in the mixture and an additional cutting is expected in the spring, apply an additional 60 pounds of nitrogen per acre immediately after the first cutting. For spring grazing only apply 30 pounds nitrogen per acre at seeding and 45 pounds March 1 and 45 pounds April 15.

County: KNOX

Lab Number: 374752

Field 14
Sample ID WILD

Mehlich 1 SOIL TEST RESULTS and RATINGS*

(Pounds Per Acre)

Water pH	Buffer Value	P Phosphorus	K Potassium	Ca Calcium	Mg Magnesium	Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	S Sulfur	Nitrates (ppm)
6.7		163 V	210 H	2945 S	674 S								
		Organic Matter %			Soluble Salts PPM**								

*Ratings: Indicates relative availability of nutrients to plants. (See back of this form for detailed explanation.)

**PPM = Parts per Million

If you have questions about these recommendations, contact your County Extension office.

Visit our web site at <http://soilplantandpest.utk.edu> for additional information.

JAN 17 2012

RECOMMENDATIONS

WILD

Fertilizer/Lime Application Rate and Timing

Small Grain and/or Ryegrass

N / P₂O₅ / K₂O

Nitrogen/Phosphate/Potash: 60-180 / 0 / 0 pounds per acre

Limestone:

Lime is not recommended at this time

For fall grazing apply 60 pounds of nitrogen at time of seeding. For fall and spring grazing apply an additional 45 pounds of nitrogen about March 1 and 45 pounds April 15. For fall grazing and spring hay or silage, apply 60 pounds of nitrogen at seeding and 60 pounds nitrogen March 1-15. For spring hay or silage only, apply 45 pounds nitrogen at seeding and 60 pounds March 15. Where ryegrass is in the mixture and an additional cutting is expected in the spring, apply an additional 60 pounds of nitrogen per acre immediately after the first cutting. For spring grazing only apply 30 pounds nitrogen per acre at seeding and 45 pounds March 1 and 45 pounds April 15.

2009

County: Knox

Lab Number: 374753

Field 17

Mehlich 1 SOIL TEST RESULTS and RATINGS*

Sample ID: WILET

(Pounds Per Acre)

Water pH	Buffer Value	P Phosphorus	K Potassium	Ca Calcium	Mg Magnesium	Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	S Sulfur	Nitrates (ppm)
6.4		85 H	203 H	2203 S	308 S								
		Organic Matter %	Soluble Salts PPM**										

RECOMMENDATIONS

WILET

Fertilizer/Lime Application Rate and Timing

Small Grain and/or Ryegrass

N / P₂O₅ / K₂O

Nitrogen/Phosphate/Potash: 60-180 / 0 / 0 pounds per acre

Limestone:

Lime is not recommended at this time

For fall grazing apply 60 pounds of nitrogen at time of seeding. For fall and spring grazing apply an additional 45 pounds of nitrogen about March 1 and 45 pounds April 15. For fall grazing and spring hay or silage, apply 60 pounds of nitrogen at seeding and 60 pounds nitrogen March 1-15. For spring hay or silage only, apply 45 pounds nitrogen at seeding and 60 pounds March 15. Where ryegrass is in the mixture and an additional cutting is expected in the spring, apply an additional 60 pounds of nitrogen per acre immediately after the first cutting. For spring grazing only apply 30 pounds nitrogen per acre at seeding and 45 pounds March 1 and 45 pounds April 15.

County: Knox

Lab Number: 374754

Field 16

Mehlich 1 SOIL TEST RESULTS and RATINGS*

Sample ID: WILEB

(Pounds Per Acre)

Water pH	Buffer Value	P Phosphorus	K Potassium	Ca Calcium	Mg Magnesium	Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	S Sulfur	Nitrates (ppm)
6.3		94 H	213 H	1626 S	331 S								
		Organic Matter %	Soluble Salts PPM**										

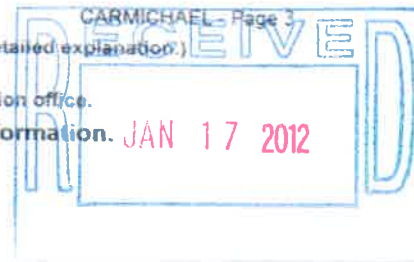
*Ratings: Indicates relative availability of nutrients to plants. (See back of this form for detailed explanation.)

**PPM = Parts per Million

If you have questions about these recommendations, contact your County Extension office.

Visit our web site at <http://soilplantandpest.utk.edu> for additional information.

CARMICHAEL Page 3



SOIL TEST REPORT

WILLWAY DAIRY
5290 HOLT RD
SWEETWATER, TN 37874

Deborah K. Joines
Deborah K. Joines
Manager
Soil, Plant and Pest Center
5201 Marchant Drive
Nashville, TN 37211-5112
(615) 832-5850
soilplantpestcenter@utk.edu

Date Tested: 12/6/2011

County: Knox

Lab Number: 426604

Mehlich 1 SOIL TEST RESULTS and RATINGS*

Sample ID FD15TK1

(Pounds Per Acre)

Water pH	Buffer Value	P Phosphorus	K Potassium	Ca Calcium	Mg Magnesium	Zn Zinc	Cu Copper	Fe Iron	Mn Manganese	B Boron	Na Sodium	S Sulfur	Nitrates (ppm)
6.9		169 V	273 H	3329 S	855 S								
		Organic Matter %	Soluble Salts PPM**										

RECOMMENDATIONS

FD15TK1

Fertilizer/Lime Application Rate and Timing

Corn Silage 15-18 T/A

N / P₂O₅ / K₂O

Nitrogen/Phosphate/Potash: 120 / 0 / 0 pounds per acre

Limestone: Lime is not recommended at this time

Banding a portion or all of the phosphate and potash two inches to the side and below the seed level may result in increased yields on soils testing low in either or both phosphorous and potassium. For soils testing medium or higher, either banding or broadcasting are effective methods of application. If fertilizer is placed directly with the seed, do not apply more than 30 pounds per acre of nitrogen or nitrogen plus potash to prevent seedling injury and loss of stand.

Split applications of nitrogen may be beneficial when nitrogen rates are greater than 120 pounds per acre. See Corn Nitrogen Rate Calculator at www.utcrops.com.

If nitrogen sources containing urea are not incorporated, some loss of nitrogen may occur if applied to moist soils followed by three or more days of rapidly drying conditions without rainfall.

Reduce N rate by 60 to 80 pounds per acre following a winter cover crop of crimson clover or hairy vetch that has reached early bloom stage.

If zinc was tested and is below 2 pounds per acre, apply five pounds of zinc (approximately 15 pounds zinc sulfate) per acre just prior to planting.

County: Knox

Lab Number: 426605

WILLWAY DAIRY - Page 1

*Ratings: Indicates relative availability of nutrients to plants. (See back of this form for detailed explanation.)

**PPM = Parts per Million

If you have questions about these recommendations, contact your County Extension office.

Visit our web site at <http://soilplantandpest.utk.edu> for additional information.



Tennessee Phosphorus Index

Operation:	Willway Dairy	County:	Monroe	Plan Saved:	1/8/2012
Plan File:	WillwayDairytest1.mmp	State:	Tennessee	Init. File Rev:	11/8/2011
Plan Folder:	S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016			Crop Years:	
	2012-2016	Soils File Rev:	8/29/2011		

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 175 ft	1	Low
<i>Part A Total</i>		6	
<i>Part B: Phosphorus loss potential due to source and management characteristics</i>			
Soil Test P	52 ppm	4	High
P Application Rate	None applied., Manure: 81 lbs P ₂ O ₅ /ac	8	Very high
Application Timing	Jul	1	Low
Application Method	Surface applied (no incorporation)	8	Very high
<i>Part B Total</i>		21	
<i>P Index (Part A x Part B)</i>		126	Medium

Field: T-1 F-5
Crop Year: 2015

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: Pasture/Hay	2	Low
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 175 ft	1	Low
Part A Total		6	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	52 ppm	4	High
P Application Rate	None applied., Manure: 81 lbs P ₂ O ₅ /ac	8	Very high
Application Timing	Jul	1	Low
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		21	
P Index (Part A x Part B)		126	Medium

Field: T-1 F-5
Crop Year: 2016

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: Pasture/Hay	2	Low
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 175 ft	1	Low
Part A Total		6	
Part B: Phosphorus loss potential due to source and management characteristics			

Tennessee Phosphorus Index

Operation: Willway Dairy **County:** Monroe **Plan Saved:** 1/8/2012
Plan File: WillwayDairytest1.mmp **State:** Tennessee **Init. File Rev:** 11/8/2011
Plan Folder: S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016 **Crop Years:** 2012-2016
Soils File Rev: 8/29/2011

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Soil Test P	52 ppm	4	High
P Application Rate	None applied., Manure: 81 lbs P ₂ O ₅ /ac	8	Very high
Application Timing	Jul	1	Low
Application Method	Surface applied (no incorporation)	8	Very high
<i>Part B Total</i>		21	
P Index (Part A x Part B)		126	Medium

Field: T-1 F-6
Crop Year: 2012

Crop Year: 2012

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 5.0, Cover: Pasture/Hay	2	Low
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 150 ft	1	Low
Part A Total		6	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	52 ppm	4	High
P Application Rate	None applied.	0	Low
Application Timing	None applied.	0	Low
Application Method	None applied.	0	Low
Part B Total		4	
P Index (Part A x Part B)		24	Low

Field: T-1 F-6
Crop Year: 2013

Group Year: 2010

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 5.0, Cover: Pasture/Hay	2	Low
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 150 ft	1	Low
Part A Total		6	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	52 ppm	4	High
P Application Rate	None applied., Manure: 162 lbs P ₂ O ₅ /ac	16	Very high
Application Timing	Jul	1	Low
Application Method	Surface applied (no incorporation)	8	Very high

Tennessee Phosphorus Index

Operation: Willway Dairy	County: Monroe	Plan Saved: 1/8/2012
Plan File: WillwayDairytest1.mmp	State: Tennessee	Init. File Rev: 11/8/2011
Plan Folder: S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016	Soils File Rev:	Crop Years: 8/29/2011

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
	<i>Part B Total</i>	29	
	P Index (Part A x Part B)	174	Medium

Field: T-1 F-6
Crop Year: 2014

Crop Year: 2014

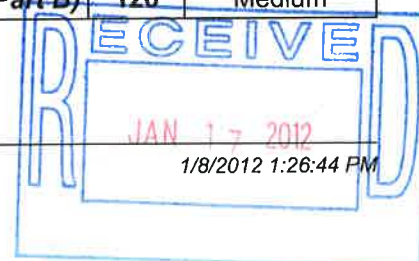
Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 5.0, Cover: Pasture/Hay	2	Low
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 150 ft	1	Low
Part A Total		6	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	52 ppm	4	High
P Application Rate	None applied., Manure: 81 lbs P ₂ O ₅ /ac	8	Very high
Application Timing	Jul	1	Low
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		21	
P Index (Part A x Part B)		126	Medium

Field: T-1 F-6
Crop Year: 2015

Crop Year: 2015

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 5.0, Cover: Pasture/Hay	2	Low
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 150 ft	1	Low
Part A Total		6	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	52 ppm	4	High
P Application Rate	None applied., Manure: 81 lbs P ₂ O ₅ /ac	8	Very high
Application Timing	Jul	1	Low
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		21	
P Index (Part A x Part B)		126	Medium

Field: T-1 F-6
Crop Year: 2016



Tennessee Phosphorus Index

Operation: Willway Dairy **County:** Monroe **Plan Saved:** 1/8/2012
Plan File: WillwayDairytest1.mmp **State:** Tennessee **Init. File Rev:** 11/8/2011
Plan Folder: S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016 **Crop Years:** 2012-2016
Soils File Rev: 8/29/2011

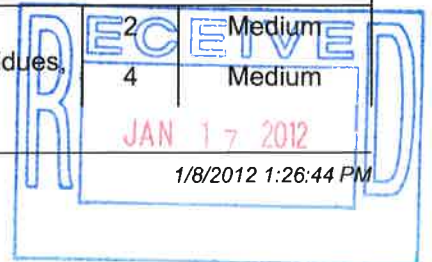
Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 5.0, Cover: Pasture/Hay	2	Low
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 150 ft	1	Low
Part A Total		6	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	52 ppm	4	High
P Application Rate	None applied., Manure: 81 lbs P ₂ O ₅ /ac	8	Very high
Application Timing	Jul	1	Low
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		21	
P Index (Part A x Part B)		126	Medium

Field: T-1 F-7
Crop Year: 2012

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 600 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	143 ppm	8	Very high
P Application Rate	None applied.	0	Low
Application Timing	None applied.	0	Low
Application Method	None applied.	0	Low
Part B Total		8	
P Index (Part A x Part B)		64	Low

Field: T-1 F-7
Crop Year: 2013

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium



Tennessee Phosphorus Index

Operation:	Willway Dairy	County:	Monroe	Plan Saved:	1/8/2012
Plan File:	WillwayDairytest1.mmp	State:	Tennessee	Init. File Rev:	11/8/2011
Plan Folder:	S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016			Crop Years:	
	2012-2016	Soils File Rev:		8/29/2011	

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 600 ft	1	Low
<i>Part A Total</i>		8	
<i>Part B: Phosphorus loss potential due to source and management characteristics</i>			
Soil Test P	143 ppm	8	Very high
P Application Rate	None applied., Manure: 60 lbs P ₂ O ₅ /ac	6	Very high
Application Timing	Sep	1	Low
Application Method	Injected	1	Low
<i>Part B Total</i>		16	
<i>P Index (Part A x Part B)</i>		128	Medium

Field: T-1 F-7
Crop Year: 2014

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 600 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	143 ppm	8	Very high
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	Apr	2	Medium
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		20	
P Index (Part A x Part B)		160	Medium

Field: T-1 F-7
Crop Year: 2015

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 600 ft	1	Low
Part A Total		8	

Tennessee Phosphorus Index

Operation:	Willway Dairy	County:	Monroe	Plan Saved:	1/8/2012
Plan File:	WillwayDairytest1.mmp	State:	Tennessee	Init. File Rev:	11/8/2011
Plan Folder:	S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016			Crop Years:	
	2012-2016	Soils File Rev:	8/29/2011		

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Application Timing	None applied.	0	Low
Application Method	None applied.	0	Low
<i>Part B Total</i>		8	
<i>P Index (Part A x Part B)</i>		64	Low

Field: T-1 F-8
Crop Year: 2013

Site Information		Information Used to Determine P Loss Rating		Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics					
Hydrologic Soil Group	Hydrologic group: B		2	Medium	
Erosion Potential	Slope: 5.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m		4	Medium	
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft		1	Low	
Non-Application Width from Surface Water Conveyance	Distance to water: 425 ft		1	Low	
Part A Total			8		
Part B: Phosphorus loss potential due to source and management characteristics					
Soil Test P	143 ppm		8	Very high	
P Application Rate	None applied., Manure: 60 lbs P ₂ O ₅ /ac		6	Very high	
Application Timing	Sep		1	Low	
Application Method	Injected		1	Low	
Part B Total			16		
P Index (Part A x Part B)			128	Medium	

Field: T-1 F-8
Crop Year: 2014

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 5.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 425 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	143 ppm	8	Very high
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	Apr	2	Medium
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		20	

Tennessee Phosphorus Index

Operation: Willway Dairy **County:** Monroe **Plan Saved:** 1/8/2012
Plan File: WillwayDairytest1.mmp **State:** Tennessee **Init. File Rev:** 11/8/2011
Plan Folder: S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016 **Crop Years:** 2012-2016
Soils File Rev: 8/29/2011

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
	P Index (Part A x Part B)	160	Medium

Field: T-1 F-8
Crop Year: 2015

Step 1: Scan 2018

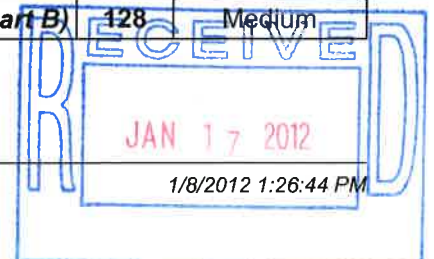
Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 5.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 425 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	143 ppm	8	Very high
P Application Rate	None applied., Manure: 60 lbs P ₂ O ₅ /ac	6	Very high
Application Timing	Sep	1	Low
Application Method	Injected	1	Low
Part B Total		16	
P Index (Part A x Part B)		128	Medium

Field: T-1 F-8
Crop Year: 2016

Stop Year 2016

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 5.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 425 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	143 ppm	8	Very high
P Application Rate	None applied., Manure: 60 lbs P ₂ O ₅ /ac	6	Very high
Application Timing	Sep	1	Low
Application Method	Injected	1	Low
Part B Total		16	
P Index (Part A x Part B)		128	Medium

Field: T-1 F-10
Crop Year: 2012



Tennessee Phosphorus Index

Operation:	Willway Dairy	County:	Monroe	Plan Saved:	1/8/2012
Plan File:	WillwayDairytest1.mmp	State:	Tennessee	Init. File Rev:	11/8/2011
Plan Folder:	S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016			Crop Years:	
	2012-2016	Soils File Rev:	8/29/2011		

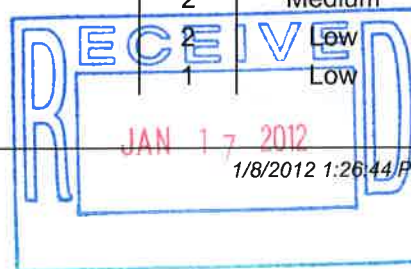
Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: Pasture/Hay	2	Low
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 250 ft	1	Low
Part A Total		6	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	15 ppm	1	Low
P Application Rate	None applied., Manure: 18 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	Mar, w/ cover	2	Medium
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		13	
P Index (Part A x Part B)		78	Low

Field: T-1 F-10
Crop Year: 2013

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: Pasture/Hay	2	Low
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 250 ft	1	Low
Part A Total		6	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	15 ppm	1	Low
P Application Rate	None applied., Manure: 46 lbs P ₂ O ₅ /ac	5	High
Application Timing	Oct	2	Medium
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		16	
P Index (Part A x Part B)		96	Low

Field: T-1 F-10
Crop Year: 2014

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: Pasture/Hay	2	Low
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low



Operation:	Willway Dairy	County:	Monroe	Plan Saved:	1/8/2012
Plan File:	WillwayDairytest1.mmp	State:	Tennessee	Init. File Rev:	11/8/2011
Plan Folder:	S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016				Crop Years:
	2012-2016	Soils File Rev:	8/29/2011		

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
P Application Rate	None applied., Manure: 46 lbs P ₂ O ₅ /ac	5	High
Application Timing	Nov, w/ cover	2	Medium
Application Method	Surface applied (no incorporation)	8	Very high
<i>Part B Total</i>		16	
<i>P Index (Part A x Part B)</i>		96	Low

Field: T-1 F-13
Crop Year: 2012

Site Information		Information Used to Determine P Loss Rating		Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics					
Hydrologic Soil Group	Hydrologic group: B		2	Medium	
Erosion Potential	Slope: 10.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m		4	Medium	
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft		1	Low	
Non-Application Width from Surface Water Conveyance	Distance to water: 425 ft		1	Low	
Part A Total			8		
Part B: Phosphorus loss potential due to source and management characteristics					
Soil Test P	40 ppm		4	High	
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac		2	Medium	
Application Timing	Apr		2	Medium	
Application Method	Surface applied (no incorporation)		8	Very high	
Part B Total			16		
P Index (Part A x Part B)			128	Medium	

Field: T-1 F-13
Crop Year: 2013

Site Information		Information Used to Determine P Loss Rating		Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics					
Hydrologic Soil Group	Hydrologic group: B	2	Medium		
Erosion Potential	Slope: 10.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium		
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low		
Non-Application Width from Surface Water Conveyance	Distance to water: 425 ft	1	Low		
		Part A Total	8		
Part B: Phosphorus loss potential due to source and management characteristics					
Soil Test P	40 ppm	4	High		
P Application Rate	None applied., Manure: 60 lbs P ₂ O ₅ /ac	6	Very high		
Application Timing	Sep	1	Low		
Application Method	Injected	1	Low		

Tennessee Phosphorus Index

Operation: Willway Dairy **County:** Monroe **Plan Saved:** 1/8/2012
Plan File: WillwayDairytest1.mmp **State:** Tennessee **Init. File Rev:** 11/8/2011
Plan Folder: S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016 **Crop Years:** 2012-2016
Soils File Rev: 8/29/2011

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
	<i>Part B Total</i>	12	
	P Index (Part A x Part B)	96	Low

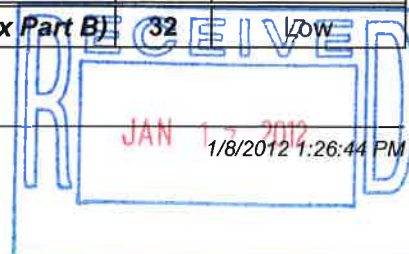
Field: T-1 F-13
Crop Year: 2014

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 425 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	40 ppm	4	High
P Application Rate	None applied., Manure: 105 lbs P ₂ O ₅ /ac	11	Very high
Application Timing	Apr	2	Medium
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		25	
P Index (Part A x Part B)		200	Medium

Field: T-1 F-13
Crop Year: 2015

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 425 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	40 ppm	4	High
P Application Rate	None applied.	0	Low
Application Timing	None applied.	0	Low
Application Method	None applied.	0	Low
Part B Total		4	
P Index (Part A x Part B)		32	Low

Field: T-1 F-13



Tennessee Phosphorus Index

Operation: Willway Dairy	County: Monroe	Plan Saved: 1/8/2012
Plan File: WillwayDairytest1.mmp	State: Tennessee	Init. File Rev: 11/8/2011
Plan Folder: S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016	Soils File Rev:	Crop Years: 8/29/2011

Crop Year: 2016

Crop Year: 2010

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 425 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	40 ppm	4	High
P Application Rate	None applied., Manure: 81 lbs P ₂ O ₅ /ac	8	Very high
Application Timing	Sep	1	Low
Application Method	Injected	1	Low
Part B Total		14	
P Index (Part A x Part B)		112	Medium

Field: T-1 F-14

Crop Year: 2012

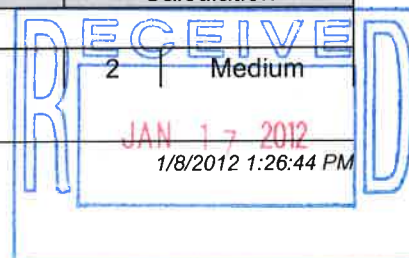
Crop Year: 2012

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 5.0, Cover: No-till w/ light to medium residues, Slope len.: 75 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 175 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	71 ppm	4	High
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	May	2	Medium
Application Method	Incorporated within 5 days of application	2	Medium
Part B Total		10	
P Index (Part A x Part B)		80	Low

Field: T-1 F-14

Crop Year: 2013

Crop Year: 2015		
Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation
Part A: Phosphorus loss potential due to site and transport characteristics		
Hydrologic Soil Group	Hydrologic group: B	2 Medium



Tennessee Phosphorus Index

Operation: Willway Dairy **County:** Monroe **Plan Saved:** 1/8/2012
Plan File: WillwayDairytest1.mmp **State:** Tennessee **Init. File Rev:** 11/8/2011
Plan Folder: S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016 **Crop Years:** 2012-2016
Soils File Rev: 8/29/2011

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Erosion Potential	Slope: 5.0, Cover: No-till w/ light to medium residues, Slope len.: 75 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 175 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	71 ppm	4	High
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	May	2	Medium
Application Method	Incorporated within 5 days of application	2	Medium
Part B Total		10	
P Index (Part A x Part B)		80	Low

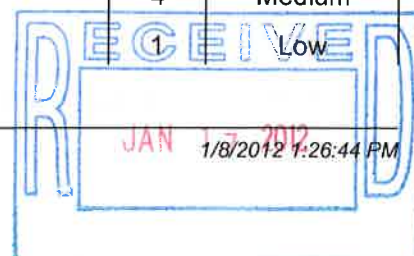
Field: T-1 F-14
Crop Year: 2014

Crop Year 2011

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 5.0, Cover: No-till w/ light to medium residues, Slope len.: 75 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 175 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	71 ppm	4	High
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	May	2	Medium
Application Method	Incorporated within 5 days of application	2	Medium
Part B Total		10	
P Index (Part A x Part B)		80	Low

Field: T-1 F-14
Crop Year: 2015

Site Information		Information Used to Determine P Loss Rating		Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics					
Hydrologic Soil Group	Hydrologic group: B			2	Medium
Erosion Potential	Slope: 5.0, Cover: No-till w/ light to medium residues, Slope len.: 75 m			4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft			1	Low



Tennessee Phosphorus Index

Operation: Willway Dairy	County: Monroe	Plan Saved: 1/8/2012
Plan File: WillwayDairytest1.mmp	State: Tennessee	Init. File Rev: 11/8/2011
Plan Folder: S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016	Soils File Rev:	Crop Years: 8/29/2011

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Non-Application Width from Surface Water Conveyance	Distance to water: 175 ft	1	Low
<i>Part A Total</i>		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	71 ppm	4	High
P Application Rate	None applied., Manure: 105 lbs P ₂ O ₅ /ac	10	Very high
Application Timing	May	2	Medium
Application Method	Incorporated within 5 days of application	2	Medium
<i>Part B Total</i>		18	
P Index (Part A x Part B)		144	Medium

Field: T-1 F-14
Crop Year: 2016

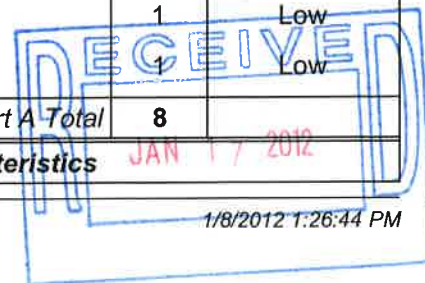
Crop Year: 2010

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 5.0, Cover: No-till w/ light to medium residues, Slope len.: 75 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 175 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	71 ppm	4	High
P Application Rate	None applied., Manure: 84 lbs P ₂ O ₅ /ac	8	Very high
Application Timing	May	2	Medium
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		22	
P Index (Part A x Part B)		176	Medium

Field: T-1 F-15
Crop Year: 2012

Crop Year: 2012

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 8.0, Cover: No-till w/ light to medium residues, Slope len.: 75 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 675 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			



Tennessee Phosphorus Index

Operation: Willway Dairy **County:** Monroe **Plan Saved:** 1/8/2012
Plan File: WillwayDairytest1.mmp **State:** Tennessee **Init. File Rev:** 11/8/2011
Plan Folder: S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016 **Crop Years:** 2012-2016
Soils File Rev: 8/29/2011

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Soil Test P	84 ppm	4	High
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	May	2	Medium
Application Method	Incorporated within 5 days of application	2	Medium
<i>Part B Total</i>		10	
P Index (Part A x Part B)		80	Low

Field: T-1 F-15
Crop Year: 2013

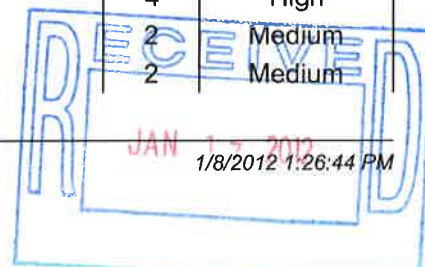
Crop Year: 2019

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 8.0, Cover: No-till w/ light to medium residues, Slope len.: 75 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 675 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	84 ppm	4	High
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	May	2	Medium
Application Method	Incorporated within 5 days of application	2	Medium
Part B Total		10	
P Index (Part A x Part B)		80	Low

Field: T-1 F-15
Crop Year: 2014

Step 14 of 14

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 8.0, Cover: No-till w/ light to medium residues, Slope len.: 75 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 675 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	84 ppm	4	High
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	May	2	Medium



Tennessee Phosphorus Index

Operation: Willway Dairy **County:** Monroe **Plan Saved:** 1/8/2012
Plan File: WillwayDairytest1.mmp **State:** Tennessee **Init. File Rev:** 11/8/2011
Plan Folder: S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016 **Crop Years:** 2012-2016 **Soils File Rev:** 8/29/2011

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Application Method	Incorporated within 5 days of application	2	Medium
<i>Part B Total</i>		10	
P Index (Part A x Part B)		80	Low

Field: T-1 F-15
Crop Year: 2015

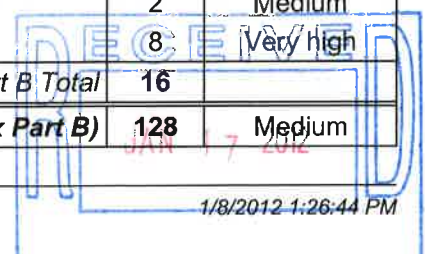
Top Year 2019

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 8.0, Cover: No-till w/ light to medium residues, Slope len.: 75 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 675 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	84 ppm	4	High
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	May	2	Medium
Application Method	Incorporated within 5 days of application	2	Medium
Part B Total		10	
P Index (Part A x Part B)		80	Low

Field: T-1 F-15
Crop Year: 2016

Step Year: 2010

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 8.0, Cover: No-till w/ light to medium residues, Slope len.: 75 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 675 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	84 ppm	4	High
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	May	2	Medium
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		16	
P Index (Part A x Part B)		128	Medium



Tennessee Phosphorus Index

Operation:	Willway Dairy	County:	Monroe	Plan Saved:	1/8/2012
Plan File:	WillwayDairytest1.mmp	State:	Tennessee	Init. File Rev:	11/8/2011
Plan Folder:	S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016				Crop Years:
	2012-2016	Soils File Rev:	8/29/2011		

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 5.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 875 ft	1	Low
<i>Part A Total</i>		8	
<i>Part B: Phosphorus loss potential due to source and management characteristics</i>			
Soil Test P	47 ppm	4	High
P Application Rate	None applied., Manure: 81 lbs P ₂ O ₅ /ac	8	Very high
Application Timing	Sep	1	Low
Application Method	Injected	1	Low
<i>Part B Total</i>		14	
<i>P Index (Part A x Part B)</i>		112	Medium

Field: T-1 F-16
Crop Year: 2015

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 5.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 875 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	47 ppm	4	High
P Application Rate	None applied., Manure: 81 lbs P ₂ O ₅ /ac	8	Very high
Application Timing	Sep	1	Low
Application Method	Injected	1	Low
Part B Total		14	
P Index (Part A x Part B)		112	Medium

Field: T-1 F-16
Crop Year: 2016

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 5.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low

Tennessee Phosphorus Index

Operation: Willway Dairy **County:** Monroe **Plan Saved:** 1/8/2012
Plan File: WillwayDairytest1.mmp **State:** Tennessee **Init. File Rev:** 11/8/2011
Plan Folder: S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016 **Crop Years:** 2012-2016
Soils File Rev: 8/29/2011

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Application Method	Surface applied (no incorporation)	8	Very high
<i>Part B Total</i>		16	
P Index (Part A x Part B)		128	Medium

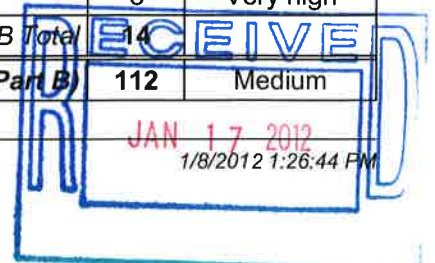
Field: T-1 F-27
Crop Year: 2016

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 1425 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	88 ppm	4	High
P Application Rate	None applied., Manure: 60 lbs P ₂ O ₅ /ac	6	Very high
Application Timing	Sep	1	Low
Application Method	Injected	1	Low
Part B Total		12	
P Index (Part A x Part B)		96	Low

Field: T-1 F-28
Crop Year: 2012

Stop Year: 2012

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 1050 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	20 ppm	2	Medium
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	Apr	2	Medium
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		14	
P Index (Part A x Part B)		112	Medium



Tennessee Phosphorus Index

Operation: Willway Dairy **County:** Monroe **Plan Saved:** 1/8/2012
Plan File: WillwayDairytest1.mmp **State:** Tennessee **Init. File Rev:** 11/8/2011
Plan Folder: S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016 **Crop Years:** 2012-2016
Soils File Rev: 8/29/2011

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 1050 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	20 ppm	2	Medium
P Application Rate	None applied., Manure: 81 lbs P ₂ O ₅ /ac	8	Very high
Application Timing	Sep	1	Low
Application Method	Injected	1	Low
Part B Total		12	
P Index (Part A x Part B)		96	Low

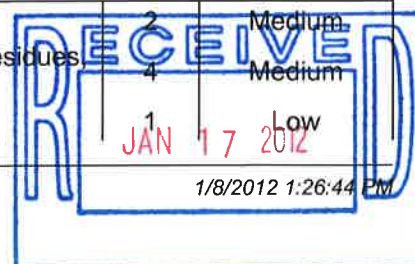
Field: T-1 F-28
Crop Year: 2016

Crop Year: 2010

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 1050 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	20 ppm	2	Medium
P Application Rate	None applied., Manure: 81 lbs P ₂ O ₅ /ac	8	Very high
Application Timing	Sep	1	Low
Application Method	Injected	1	Low
Part B Total		12	
P Index (Part A x Part B)		96	Low

Field: T-1 F-33
Crop Year: 2012

Crop Year: 2012		Value for P Index Calculation	
Site Information	Information Used to Determine P Loss Rating		
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low



Tennessee Phosphorus index

Operation:	Willway Dairy	County:	Monroe	Plan Saved:	1/8/2012
Plan File:	WillwayDairytest1.mmp	State:	Tennessee	Init. File Rev:	11/8/2011
Plan Folder:	S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016				Crop Years:
	2012-2016	Soils File Rev:	8/29/2011		

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Non-Application Width from Surface Water Conveyance	Distance to water: 1100 ft	1	Low
<i>Part A Total</i>		8	
<i>Part B: Phosphorus loss potential due to source and management characteristics</i>			
Soil Test P	96 ppm	4	High
P Application Rate	None applied.	0	Low
Application Timing	None applied.	0	Low
Application Method	None applied.	0	Low
<i>Part B Total</i>		4	
<i>P Index (Part A x Part B)</i>		32	Low

Field: T-1 F-33
Crop Year: 2013

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 1100 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	96 ppm	4	High
P Application Rate	None applied., Manure: 60 lbs P ₂ O ₅ /ac	6	Very high
Application Timing	Sep	1	Low
Application Method	Injected	1	Low
Part B Total		12	
P Index (Part A x Part B)		96	Low

Field: T-1 F-33
Crop Year: 2014

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 1100 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			

Tennessee Phosphorus Index

Operation: Willway Dairy **County:** Monroe **Plan Saved:** 1/8/2012
Plan File: WillwayDairytest1.mmp **State:** Tennessee **Init. File Rev:** 11/8/2011
Plan Folder: S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016 **Crop Years:** 2012-2016
Soils File Rev: 8/29/2011

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Soil Test P	96 ppm	4	High
P Application Rate	None applied., Manure: 60 lbs P ₂ O ₅ /ac	6	Very high
Application Timing	Sep	1	Low
Application Method	Injected	1	Low
<i>Part B Total</i>		12	
P Index (Part A x Part B)		96	Low

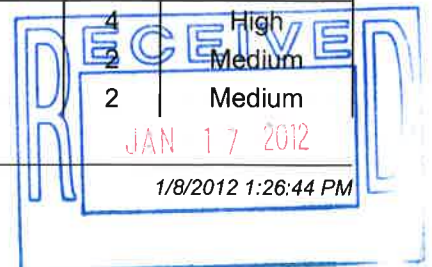
Field: T-1 F-33
Crop Year: 2015

Stop Year: 2010

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 1100 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	96 ppm	4	High
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	Oct	2	Medium
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		16	
P Index (Part A x Part B)		128	Medium

Field: T-1 F-33
Crop Year: 2016

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 1100 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	96 ppm	4	High
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	May	2	Medium



Tennessee Phosphorus Index

Operation:	Willway Dairy	County:	Monroe	Plan Saved:	1/8/2012
Plan File:	WillwayDairytest1.mmp	State:	Tennessee	Init. File Rev:	11/8/2011
Plan Folder:	S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016			Crop Years:	
	2012-2016	Soils File Rev:	8/29/2011		

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Application Method	Surface applied (no incorporation)	8	Very high
<i>Part B Total</i>		16	
<i>P Index (Part A x Part B)</i>		128	Medium

Field: T-7059 F-2
Crop Year: 2012

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 1350 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	81 ppm	4	High
P Application Rate	None applied., Manure: 16 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	Feb, w/o cover	8	Very high
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		22	
P Index (Part A x Part B)		176	Medium

Field: T-7059 F-2
Crop Year: 2013

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 1350 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	81 ppm	4	High
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	Sep	1	Low
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		15	
P Index (Part A x Part B)		120	Medium

Tennessee Phosphorus Index

Operation: Willway Dairy **County:** Monroe **Plan Saved:** 1/8/2012
Plan File: WillwayDairytest1.mmp **State:** Tennessee **Init. File Rev:** 11/8/2011
Plan Folder: S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016 **Crop Years:** 2012-2016
Soils File Rev: 8/29/2011

Field: T-7059 F-2
Crop Year: 2014

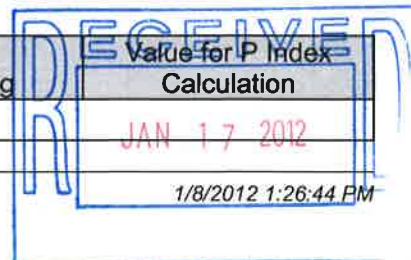
Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 1350 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	81 ppm	4	High
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	Oct	2	Medium
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		16	
P Index (Part A x Part B)		128	Medium

Field: T-7059 F-2
Crop Year: 2015

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 1350 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	81 ppm	4	High
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	Apr	2	Medium
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		16	
P Index (Part A x Part B)		128	Medium

Field: T-7059 F-2
Crop Year: 2016

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation
Part A: Phosphorus loss potential due to site and transport characteristics		



Tennessee Phosphorus Index

Operation:	Willway Dairy	County:	Monroe	Plan Saved:	1/8/2012
Plan File:	WillwayDairytest1.mmp	State:	Tennessee	Init. File Rev:	11/8/2011
Plan Folder:	S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016				Crop Years:
	2012-2016	Soils File Rev:	8/29/2011		

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 1350 ft	1	Low
<i>Part A Total</i>		8	
<i>Part B: Phosphorus loss potential due to source and management characteristics</i>			
Soil Test P	81 ppm	4	High
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	Mar, w/o cover	4	High
Application Method	Surface applied (no incorporation)	8	Very high
<i>Part B Total</i>		18	
<i>P Index (Part A x Part B)</i>		144	Medium

Field: T-7059 F-3
Crop Year: 2012

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 5.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 400 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	75 ppm	4	High
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	Feb, w/o cover	8	Very high
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		22	
P Index (Part A x Part B)		176	Medium

Field: T-7059 F-3
Crop Year: 2013

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 5.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low

Tennessee Phosphorus index

Operation:	Willway Dairy	County:	Monroe	Plan Saved:	1/8/2012
Plan File:	WillwayDairytest1.mmp	State:	Tennessee	Init. File Rev:	11/8/2011
Plan Folder:	S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016				Crop Years:
	2012-2016	Soils File Rev:	8/29/2011		

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Soil Test P	75 ppm	4	High
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	Apr	2	Medium
Application Method	Surface applied (no incorporation)	8	Very high
<i>Part B Total</i>		16	
<i>P Index (Part A x Part B)</i>		128	Medium

Field: T-7059 F-3

Crop Year: 2016

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 5.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 400 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	75 ppm	4	High
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	Apr	2	Medium
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		16	
P Index (Part A x Part B)		128	Medium

Field: T-7059 F-6

Crop Year: 2012

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 5.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 300 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	74 ppm	4	High
P Application Rate	None applied., Manure: 16 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	Feb, w/o cover	8	Very high

Tennessee Phosphorus Index

Operation: Willway Dairy **County:** Monroe **Plan Saved:** 1/8/2012
Plan File: WillwayDairytest1.mmp **State:** Tennessee **Init. File Rev:** 11/8/2011
Plan Folder: S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016 **Crop Years:** 2012-2016
Soils File Rev: 8/29/2011

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Application Method	Surface applied (no incorporation)	8	Very high
<i>Part B Total</i>		22	
P Index (Part A x Part B)		176	Medium

Field: T-7059 F-6
Crop Year: 2013

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 5.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 300 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	74 ppm	4	High
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	Sep	1	Low
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		15	
P Index (Part A x Part B)		120	Medium

Field: T-7059 F-6
Crop Year: 2014

Group Year: 2014

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 5.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 300 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	74 ppm	4	High
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	Oct	2	Medium
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		16	
P Index (Part A x Part B)		128	Medium

Tennessee Phosphorus index

Operation: Willway Dairy	County: Monroe	Plan Saved: 1/8/2012
Plan File: WillwayDairytest1.mmp	State: Tennessee	Init. File Rev: 11/8/2011
Plan Folder: S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016	Soils File Rev:	Crop Years:
2012-2016		8/29/2011

Field: T-7059 F-6
Crop Year: 2015

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 5.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 300 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	74 ppm	4	High
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	Apr	2	Medium
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		16	
P Index (Part A x Part B)		128	Medium

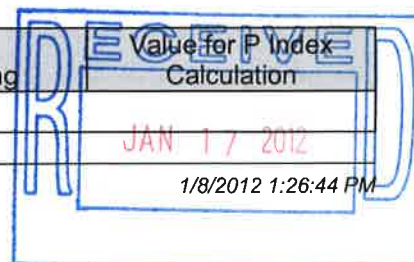
Field: T-7059 F-6
Crop Year: 2016

Crop Year: 2010

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 5.0, Cover: No-till w/ light to medium residues, Slope len.: 100 m	4	Medium
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 300 ft	1	Low
Part A Total		8	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	74 ppm	4	High
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	Mar, w/o cover	4	High
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		18	
P Index (Part A x Part B)		144	Medium

Field: T-7179 F-1
Crop Year: 2012

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation
Part A: Phosphorus loss potential due to site and transport characteristics		



Tennessee Phosphorus Index

Operation: Willway Dairy **County:** Monroe **Plan Saved:** 1/8/2012
Plan File: WillwayDairytest1.mmp **State:** Tennessee **Init. File Rev:** 11/8/2011
Plan Folder: S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016 **Crop Years:** 2012-2016
Soils File Rev: 8/29/2011

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 3.0, Cover: No-till w/ light to medium residues, Soil texture: SIL, East TN, Slope len.: 100 m	2	Low
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 275 ft	1	Low
<i>Part A Total</i>		6	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	71 ppm	4	High
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	May	2	Medium
Application Method	Incorporated within 5 days of application	2	Medium
<i>Part B Total</i>		10	
P Index (Part A x Part B)		60	Low

Field: T-7179 F-1

Crop Year: 2013

Group Year: 2010

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 3.0, Cover: No-till w/ light to medium residues, Soil texture: SIL, East TN, Slope len.: 100 m	2	Low
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 275 ft	1	Low
Part A Total		6	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	71 ppm	4	High
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	May	2	Medium
Application Method	Incorporated within 5 days of application	2	Medium
Part B Total		10	
P Index (Part A x Part B)		60	Low

Field: T-7179 F-1

Crop Year: 2014

Site Information		Information Used to Determine P Loss Rating		Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics					
Hydrologic Soil Group	Hydrologic group: B		2	Medium	
Erosion Potential	Slope: 3.0, Cover: No-till w/ light to medium residues, Soil texture: SIL, East TN, Slope len.: 100 m		2	Low	
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft		1	Low	

Tennessee Phosphorus index

Operation:	Willway Dairy	County:	Monroe	Plan Saved:	1/8/2012
Plan File:	WillwayDairytest1.mmp	State:	Tennessee	Init. File Rev:	11/8/2011
Plan Folder:	S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016			Crop Years:	
	2012-2016	Soils File Rev:	8/29/2011		

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Non-Application Width from Surface Water Conveyance	Distance to water: 275 ft	1	Low
Part A Total		6	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	71 ppm	4	High
P Application Rate	None applied., Manure: 24 lbs P ₂ O ₅ /ac	2	Medium
Application Timing	May	2	Medium
Application Method	Incorporated within 5 days of application	2	Medium
Part B Total		10	
P Index (Part A x Part B)		60	Low

Field: T-7179 F-1

Crop Year: 2015

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 3.0, Cover: No-till w/ light to medium residues, Soil texture: SIL, East TN, Slope len.: 100 m	2	Low
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 275 ft	1	Low
Part A Total		6	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	71 ppm	4	High
P Application Rate	None applied., Manure: 105 lbs P ₂ O ₅ /ac	11	Very high
Application Timing	May	2	Medium
Application Method	Incorporated within 5 days of application	2	Medium
Part B Total		19	
P Index (Part A x Part B)		114	Medium

Field: T-7179 F-1

Crop Year: 2016

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 3.0, Cover: No-till w/ light to medium residues, Soil texture: SIL, East TN, Slope len.: 100 m	2	Low
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 275 ft	1	Low
Part A Total		6	
Part B: Phosphorus loss potential due to source and management characteristics			

Tennessee Phosphorus Index

Operation: Willway Dairy **County:** Monroe **Plan Saved:** 1/8/2012
Plan File: WillwayDairytest1.mmp **State:** Tennessee **Init. File Rev:** 11/8/2011
Plan Folder: S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016 **Crop Years:** 2012-2016
Soils File Rev: 8/29/2011

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Soil Test P	71 ppm	4	High
P Application Rate	None applied., Manure: 84 lbs P ₂ O ₅ /ac	8	Very high
Application Timing	May	2	Medium
Application Method	Surface applied (no incorporation)	8	Very high
<i>Part B Total</i>		22	
P Index (Part A x Part B)		132	Medium

Field: T-7179 F-2
Crop Year: 2012

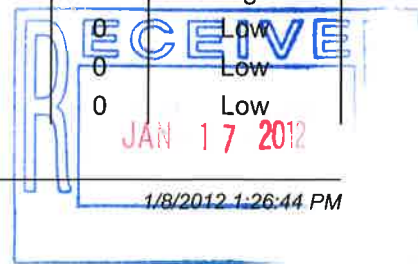
Crop Year: 2012

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: Pasture/Hay	2	Low
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 325 ft	1	Low
<i>Part A Total</i>		6	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	71 ppm	4	High
P Application Rate	None applied.	0	Low
Application Timing	None applied.	0	Low
Application Method	None applied.	0	Low
<i>Part B Total</i>		4	
P Index (Part A x Part B)		24	Low

Field: T-7179 F-2
Crop Year: 2013

Step 1: Field Data

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: Pasture/Hay	2	Low
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 325 ft	1	Low
Part A Total		6	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	71 ppm	4	High
P Application Rate	None applied.	0	Low
Application Timing	None applied.	0	Low
Application Method	None applied.	0	Low



Tennessee Phosphorus Index

Operation:	Willway Dairy	County:	Monroe	Plan Saved:	1/8/2012
Plan File:	WillwayDairytest1.mmp	State:	Tennessee	Init. File Rev:	11/8/2011
Plan Folder:	S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016				Crop Years:
	2012-2016	Soils File Rev:		8/29/2011	

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
	<i>Part B Total</i>	4	
	<i>P Index (Part A x Part B)</i>	24	Low

Field: T-7179 F-2

Crop Year: 2014

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: Pasture/Hay	2	Low
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 325 ft	1	Low
Part A Total		6	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	71 ppm	4	High
P Application Rate	None applied., Manure: 105 lbs P ₂ O ₅ /ac	10	Very high
Application Timing	Oct	2	Medium
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		24	
P Index (Part A x Part B)		144	Medium

Field: T-7179 F-2

Crop Year: 2015

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: Pasture/Hay	2	Low
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 325 ft	1	Low
Part A Total		6	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	71 ppm	4	High
P Application Rate	None applied., Manure: 105 lbs P ₂ O ₅ /ac	10	Very high
Application Timing	Oct	2	Medium
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		24	
P Index (Part A x Part B)		144	Medium

Field: T-7179 F-2

Crop Year: 2016

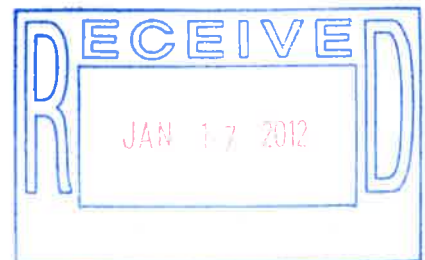
Tennessee Phosphorus Index

Operation:	Willway Dairy	County:	Monroe	Plan Saved:	1/8/2012
Plan File:	WillwayDairytest1.mmp	State:	Tennessee	Init. File Rev:	11/8/2011
Plan Folder:	S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016				Crop Years:
	2012-2016	Soils File Rev:	8/29/2011		

Site Information	Information Used to Determine P Loss Rating	Value for P Index Calculation	
Part A: Phosphorus loss potential due to site and transport characteristics			
Hydrologic Soil Group	Hydrologic group: B	2	Medium
Erosion Potential	Slope: 10.0, Cover: Pasture/Hay	2	Low
Permanent Vegetative Buffer	Vegetative buffer width: 40 ft	1	Low
Non-Application Width from Surface Water Conveyance	Distance to water: 325 ft	1	Low
Part A Total		6	
Part B: Phosphorus loss potential due to source and management characteristics			
Soil Test P	71 ppm	4	High
P Application Rate	None applied., Manure: 105 lbs P ₂ O ₅ /ac	10	Very high
Application Timing	Oct	2	Medium
Application Method	Surface applied (no incorporation)	8	Very high
Part B Total		24	
P Index (Part A x Part B)		144	Medium

713

713



Tennessee Phosphorus Index

Operation: Willway Dairy **County:** Monroe **Plan Saved:** 1/8/2012
Plan File: WillwayDairytest1.mmp **State:** Tennessee **Init. File Rev:** 11/8/2011
Plan Folder: S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016 **Soils File Rev:** 8/29/2011

Field	Crop Year	Site and Transport Factor	Mgmt. and Source Factor	P Index w/o P Apps	P Index w/ P Apps	P Loss Risk
T-1 F-5 ✓	2012	6	4	24	24	Low
T-1 F-5	2013	6	21	24	126	Medium
T-1 F-5	2014	6	21	24	126	Medium
T-1 F-5	2015	6	21	24	126	Medium
T-1 F-5	2016	6	21	24	126	Medium
T-1 F-6 ✓	2012	6	4	24	24	Low
T-1 F-6	2013	6	29	24	174	Medium
T-1 F-6	2014	6	21	24	126	Medium
T-1 F-6	2015	6	21	24	126	Medium
T-1 F-6	2016	6	21	24	126	Medium
T-1 F-7 ✓	2012	8	8	64	64	Low
T-1 F-7	2013	8	16	64	128	Medium
T-1 F-7	2014	8	20	64	160	Medium
T-1 F-7	2015	8	16	64	128	Medium
T-1 F-7	2016	8	16	64	128	Medium
T-1 F-8 ✓	2012	8	8	64	64	Low
T-1 F-8	2013	8	16	64	128	Medium
T-1 F-8	2014	8	20	64	160	Medium
T-1 F-8	2015	8	16	64	128	Medium
T-1 F-8	2016	8	16	64	128	Medium
T-1 F-10 ✓	2012	6	13	6	78	Low
T-1 F-10	2013	6	16	6	96	Low
T-1 F-10	2014	6	16	6	96	Low
T-1 F-10	2015	6	16	6	96	Low
T-1 F-10	2016	6	16	6	96	Low
T-1 F-13 ✓	2012	8	16	32	128	Medium
T-1 F-13	2013	8	12	32	96	Low
T-1 F-13	2014	8	25	32	200	Medium
T-1 F-13	2015	8	4	32	32	Low
T-1 F-13	2016	8	14	32	112	Medium
T-1 F-14 ✓	2012	8	10	32	80	Low
T-1 F-14	2013	8	10	32	80	Low
T-1 F-14	2014	8	10	32	80	Low
T-1 F-14	2015	8	18	32	144	Medium
T-1 F-14	2016	8	22	32	176	Medium
T-1 F-15 ✓	2012	8	10	32	80	Low
T-1 F-15	2013	8	10	32	80	Low

Tennessee Phosphorus Index

Operation: Willway Dairy **County:** Monroe **Plan Saved:** 1/8/2012
Plan File: WillwayDairytest1.mmp **State:** Tennessee **Init. File Rev:** 11/8/2011
Plan Folder: S:\TENNESSEE-projects\Will Malloney\Willway Dairy CNMP_2012-2016 **Soils File Rev:** 8/29/2011

Field	Crop Year	Site and Transport Factor	Mgmt. and Source Factor	P Index w/o P Apps	P Index w/ P Apps	P Loss Risk
T-1 F-15 /	2014	8	10	32	80	Low
T-1 F-15	2015	8	10	32	80	Low
T-1 F-15	2016	8	16	32	128	Medium
T-1 F-16 ✓	2012	8	16	32	128	Medium
T-1 F-16	2013	8	12	32	96	Low
T-1 F-16	2014	8	14	32	112	Medium
T-1 F-16	2015	8	14	32	112	Medium
T-1 F-16	2016	8	14	32	112	Medium
T-1 F-27 ✓	2012	8	4	32	32	Low
T-1 F-27	2013	8	12	32	96	Low
T-1 F-27	2014	8	12	32	96	Low
T-1 F-27	2015	8	16	32	128	Medium
T-1 F-27	2016	8	12	32	96	Low
T-1 F-28 ✓	2012	8	14	16	112	Medium
T-1 F-28	2013	8	10	16	80	Low
T-1 F-28	2014	8	12	16	96	Low
T-1 F-28	2015	8	12	16	96	Low
T-1 F-28	2016	8	12	16	96	Low
T-1 F-33 ✓	2012	8	4	32	32	Low
T-1 F-33	2013	8	12	32	96	Low
T-1 F-33	2014	8	12	32	96	Low
T-1 F-33	2015	8	16	32	128	Medium
T-1 F-33 ✓	2016	8	16	32	128	Medium
T-7059 F-2 ✓	2012	8	22	32	176	Medium
T-7059 F-2	2013	8	15	32	120	Medium
T-7059 F-2	2014	8	16	32	128	Medium
T-7059 F-2	2015	8	16	32	128	Medium
T-7059 F-2	2016	8	18	32	144	Medium
T-7059 F-3 ✓	2012	8	22	32	176	Medium
T-7059 F-3	2013	8	15	32	120	Medium
T-7059 F-3	2014	8	16	32	128	Medium
T-7059 F-3	2015	8	16	32	128	Medium
T-7059 F-3	2016	8	16	32	128	Medium
T-7059 F-6 ✓	2012	8	22	32	176	Medium
T-7059 F-6	2013	8	15	32	120	Medium
T-7059 F-6	2014	8	16	32	128	Medium
T-7059 F-6	2015	8	16	32	128	Medium

